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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,609	07/22/2003	Satoshi Seo	12732-087002	5062
26171 7590 04/29/2008 FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
EXAMINER				
THOMPSON, CAMIE S				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
04/29/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/623,609

**Applicant(s)**

SEO ET AL.

**Examiner**

Camie S. Thompson

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed January 15, 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 133-136, 153-168, 173-176, 181-184, 189-192 and 197-208 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 133-136, 153-168, 173-176, 181-184, 189-192 and 197-208 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/15/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's amendment and accompanying remarks filed January 15, 2008 are acknowledged.
2. Examiner acknowledges cancelled claims 1-132, 137-152, 169-171, 177-180, 185-188 and 193-197.
3. Examiner acknowledges newly added claims 201-207.
4. The rejection of claims 129-200 under 35 U.S.C. 102(e) as being anticipated by Kobori et al., U.S. Patent Number 6,285,039 is withdrawn due to applicant's argument.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 133-136, 153-168, 173-176, 181-184, 189-192, 197-200 rejected under 35 U.S.C. 102(e) as being anticipated by Ise et al., U.S. Pre Grant Publication 2002/0028329. Ise discloses a light emitting element comprising a pair of electrodes with at least a light emitting layer disposed there between (see paragraph 0010). Additionally, the reference discloses that the light emitting layer comprises a host material and a dopant (see paragraph 0009). It is also disclosed in paragraph 0030 of the reference that the light emitting element also comprises a hole injecting layer adjacent to the hole transporting layer and anode; a hole blocking layer, electron

injection layer and electron transportation layer. The reference also discloses that two layers are disposed adjacent to the light emitting layer wherein both these layers are formed of an organic material having a triplet excitation energy higher than the triplet excitation energy of the light emitting material. It is disclosed in paragraph 0002 that the light emitting element can be used in display elements, optical communication devices and recording light sources. Paragraph 0147 of the reference discloses that the guest material emits light in the triplet state and can be an iridium or platinum complex. Paragraph 0153 of the reference discloses that the thickness of the light emitting layer is in the range from 1 nm to 5 microns. Paragraph 0161 discloses that the thickness of the hole transporting and hole injecting layers is in the range of 1 nm to 5 microns. Paragraph 0170 of the reference discloses that the anode is comprised of zinc oxide, indium tin oxide, gold, silver, polyaniline, polythiophene or polypyrrole with a thickness of 10 nm to 5 microns and is disposed on a soda lime glass, noon-alkali glass or transparent resin substrate. Paragraph 0174 of the reference discloses that the cathode is comprised of alkali metals, gold, silver, lead, aluminum, sodium-potassium alloys or lithium aluminum alloys. Paragraph 0192-0193 discloses that the hole transporting material can be NPD or TPD and that the electron transporting material can be 8-quinolinol derivatives (see paragraph 0163).

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible

harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 201-208 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-68 of U.S. Patent No. 10/024,699. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the co-pending application and the claims of the present application recite a light emitting element that comprises a hole transporting region; a light emitting region and an electron

transporting region with the hole transporting region having a first and second layer and the light emitting layer having a guest material. The claims of both applications recite a concentration gradient in the first organic compound of the first layer that declines toward the hole transporting layer. Also, the claims of both applications recite the difference in energy between the highest occupied molecular orbital and the lowest unoccupied molecular orbital is smaller for the first material in the first layer than the energy difference between the highest occupied molecular orbital and the lowest unoccupied molecular orbital of the second compound of the second layer.

#### ***Response to Arguments***

9. Applicant's arguments with respect to present claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached at (571) 272-1478. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bruce H Hess/

Primary Examiner, Art Unit 1794